CLAIMS

(1) A method for forming a thin film by chemical vapor deposition comprising the steps of:

placing a liquid containing a raw material for the thin film on a part or a plurality of parts of a substrate; and

vaporizing the raw material for the thin film from the liquid so as to be fed to a part or a plurality of parts of a surface for forming the thin film to form the thin film with a predetermined pattern on the surface for forming the thin film.

(2) A method for forming a thin film according to Claim 1, wherein a surface of the substrate is used as a surface for placing the liquid, and the thin film is formed in a region other than the region in which the liquid is placed on the surface for placing the liquid.

(3) A method for forming a thin film according to Claim 1, wherein a first substrate for placing the liquid and a second substrate for forming the thin film are placed so that the surface for placing the liquid of the first substrate faces the surface for forming the thin film of the second substrate, and the raw material for the thin film is vaporized from the liquid placed on a part or a plurality of parts of the first substrate so as to be fed to the surface for forming the thin film of the second substrate.

(4) A method for forming a thin film according to Claim 3, wherein the surface for forming the thin film of the second substrate is heated to a temperature at which a vaporized substance of the raw material for the thin film is decomposable, and the first substrate is heated to a temperature at which the raw material for the thin film is vaporized from the liquid by the heat radiated from the second substrate.

(5) A method for forming a thin film according to any one of Claims 1 to 4, further comprising, before the step of placing the liquid, the step of forming an active region and an inactive region for the chemical vapor deposition in the surface for forming the thin film so that the thin film is selectively deposited.

(6) A method for forming a thin film according to Claim 5, wherein the formation of the active region and the inactive region for the chemical vapor deposition is performed by forming a self-assembled film on the surface for forming the thin film having hydroxyl groups using a silane derivative represented by the general formula $RSiX_3$ (wherein R is a fluoroalkyl group in which terminal hydrogen of the alkyl group is replaced with fluorine, and X is an alkoxy group or halogen group); and performing ultraviolet irradiation on the self-assembled film through a photomask or performing electron beam irradiation on necessary parts of the self-assembled film so that the self-assembled film in a region for forming the active region for the chemical vapor deposition is removed.

(7) A method for forming a thin film according to any one of Claims 1 to 6, wherein the step of vaporizing the raw material for the thin film is performed while supplying inert gas, hydrogen gas, or a mixture of inert gas and hydrogen gas parallel to the surface for placing the liquid of the substrate.

(8) A method for forming a thin film according to any one of Claims 1 to 7, wherein the step of placing the liquid is performed by an ink-jet method.

(9) An electronic apparatus comprising a thin film formed by the above method, the thin film being used as an electrode.